

# FA-GSW Report DOY 227 (August 15, 2009)

Flare-Advocate/Gamma-ray-Sky-Watcher report: DOY 227 (August 15, 2009)

On Duty Flare Advocates:

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## Highlights

### Extragalactic Science

- 3C 454.3 at 2.74 +/- 0.93
- ASPJ092033p443709 at 0.19 +/- 0.13 associated with EMS0619 - CRATES J092058+444144
- 3C 279 at 0.50 +/- 0.26
- ASPJ150345p102405 at 0.31 +/- 0.17 associated with EMS0969 - PKS 1502+106
- ASPJ192440m292016 at 0.41 +/- 0.22 associated with EMS1299 - BZCAT BZQ J1924-2914
- ASPJ205731m471323 at 0.75 +/- 0.29 associated with EM1413 - PKS 2052-47
- Unknown source ASPJ155100p551500 at 1.54 +/- 0.86

### Galactic Science

- PSR J1709-4429 at 2.69 +/- 0.66
- PSR J2021+4026 at 2.09 +/- 0.52
- PSR J0534+2200 at 3.57 +/- 1.23
- ASPJ102307m581313 at 4.71 +/- 2.31 associated with EMS0667
- Detection of PSR J1836+5925, PSR J1324-6302, PSR J2302+6028
- Detection of CrabPulsar, Geminga, VelaPulsar

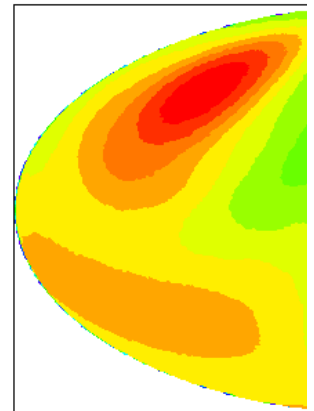
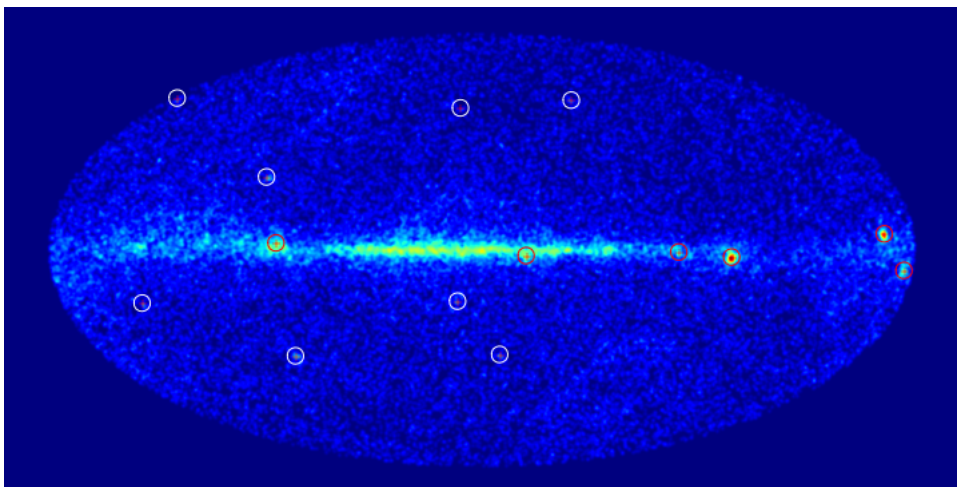


## Technical notes

- Fluxes are given in units of 1E-6 ph/cm2/s in the 0.1-300 GeV energy band.
- Science Tools: v9r15p2
- iLat and FA-dedicated scripts.
- IRF used : P6\_V3\_DIFFUSE

Likelihood Analysis results:

Daily Run (n. 417)

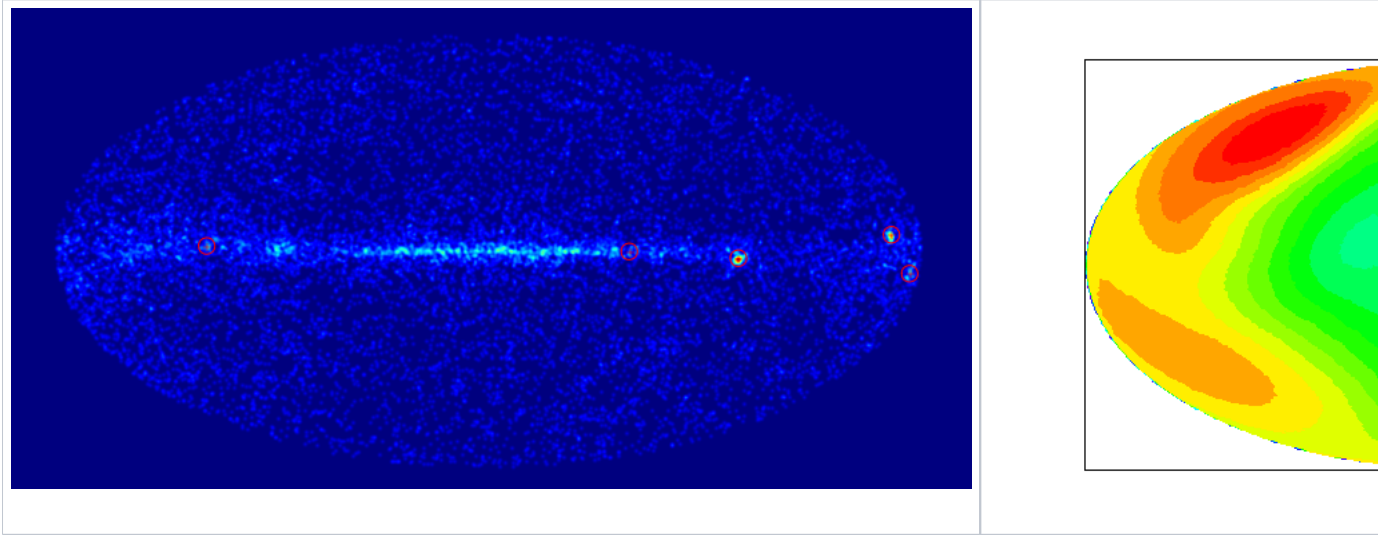


| Extragalactic sources | RA (J2000) | DEC (J2000) | L       | B        | Delta* | TS  | Npre d | Flux** | Flux err | index | index err | comment |
|-----------------------|------------|-------------|---------|----------|--------|-----|--------|--------|----------|-------|-----------|---------|
| 3C454.3               | 343.555    | 16.1959     | 86.2097 | -38.1782 |        | 108 | 48     | 1.81   | 0.38     | 2.78  | 0.23      |         |

|                   |         |          |             |              |  |    |    |      |      |      |      |                                    |
|-------------------|---------|----------|-------------|--------------|--|----|----|------|------|------|------|------------------------------------|
| ASPJ092033p443709 | 140.111 | 44.6386  | 175.79<br>5 | 44.726       |  | 7  | 5  | 0.19 | 0.13 | 2.54 | 0.61 | EMS0619 - CRATES<br>J092058+444144 |
| ASPJ125604m065043 | 194.075 | -6.1825  | 305.13<br>1 | 56.6685      |  | 31 | 12 | 0.50 | 0.26 | 2.19 | 0.36 | 3C 279                             |
| ASPJ150345p102405 | 226.258 | 10.7483  | 11.892<br>3 | 54.5891      |  | 20 | 8  | 0.31 | 0.17 | 2.09 | 0.38 | EMS0969 - PKS 1502+106             |
| ASPJ192440m292016 | 291.165 | -29.3379 | 9.2329<br>1 | -19.602      |  | 19 | 12 | 0.41 | 0.22 | 2.12 | 0.34 | EMS1299 - BZCAT BZQ J1924-2914     |
| ASPJ205731m471323 | 313.851 | -48.0691 | 351.52<br>1 | -40.199<br>9 |  | 27 | 18 | 0.75 | 0.29 | 2.84 | 0.45 | EM1413 - PKS 2052-47               |
| BM_3C66A          | 35.682  | 43.0847  | 140.13<br>7 | -16.716<br>6 |  | 36 | 21 | 0.65 | 0.25 | 2.39 | 0.31 |                                    |

| Galactic sources  | RA (J2000) | DEC (J2000) | L           | B            | Delta*<br>* | TS   | Npre<br>d | Flux**<br>* | Flux<br>err | inde<br>x | index<br>err | comment            |
|-------------------|------------|-------------|-------------|--------------|-------------|------|-----------|-------------|-------------|-----------|--------------|--------------------|
| ASPJ101714m590136 | 156.081    | -58.7145    | 284.81<br>4 | -1.1173<br>5 |             | 20   | 31        | 1.48        | 0.54        | 2.39      | 0.28         | EMS0667            |
| ASPJ170900m444500 | 257.316    | -44.3002    | 343.19<br>9 | -2.5110<br>1 |             | 78   | 71        | 2.69        | 0.66        | 2.21      | 0.17         | PSR J1709-<br>4429 |
| ASPJ183323p602605 | 278.831    | 59.6239     | 89.065<br>6 | 25.151       |             | 101  | 31        | 0.76        | 0.19        | 1.98      | 0.17         | PSR<br>J1836+5925  |
| ASPJ202214p402203 | 305.36     | 40.4374     | 78.211<br>9 | 2.09321      |             | 86   | 74        | 2.09        | 0.52        | 2.18      | 0.16         | PSR<br>J2021+4026  |
| CrabPulsar        | 83.6663    | 21.9127     | 184.66<br>1 | -5.8128<br>1 |             | 167  | 88        | 2.58        | 0.44        | 2.28      | 0.14         |                    |
| Geminga           | 98.4461    | 17.7322     | 195.15<br>5 | 4.22341      |             | 985  | 244       | 6.36        | 0.55        | 2.03      | 0.06         |                    |
| VelaPulsar        | 128.819    | -45.1689    | 263.53<br>9 | -2.7925      |             | 1284 | 358       | 13.33       | 0.93        | 2.06      | 0.05         |                    |

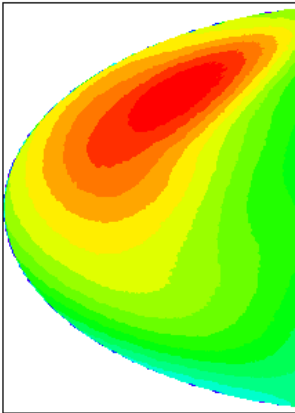
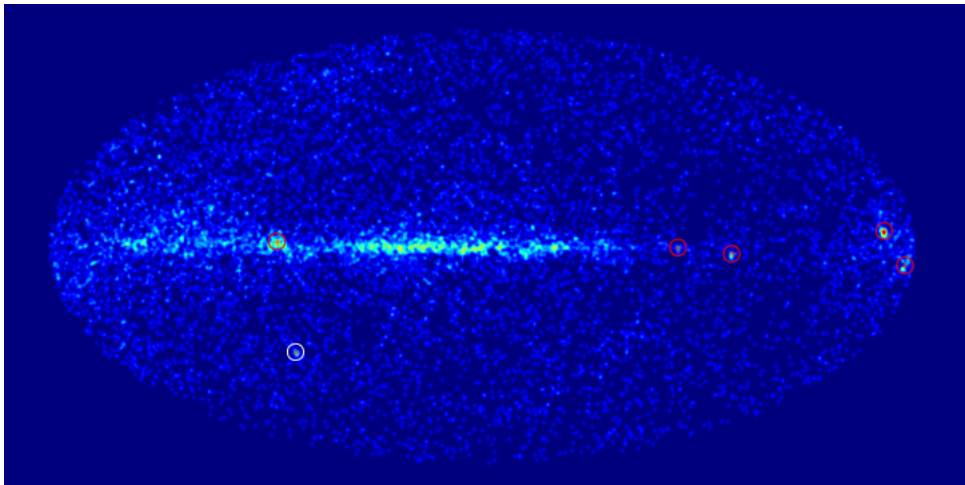
### Six hours run (n. 1665)



| Extragalactic sources | RA (J2000) | DEC (J2000) | L | B | Delta*<br>* | T<br>S | Npre<br>d | Flux**<br>* | Flux<br>err | inde<br>x | index<br>err | commen<br>t |
|-----------------------|------------|-------------|---|---|-------------|--------|-----------|-------------|-------------|-----------|--------------|-------------|
|-----------------------|------------|-------------|---|---|-------------|--------|-----------|-------------|-------------|-----------|--------------|-------------|

| Galactic sources  | RA (J2000) | DEC (J2000) | L           | B             | Delta*<br>* | TS  | Npre<br>d | Flux**<br>* | Flux<br>err | inde<br>x | index<br>err | comment                          |
|-------------------|------------|-------------|-------------|---------------|-------------|-----|-----------|-------------|-------------|-----------|--------------|----------------------------------|
| ASPJ053028p211725 | 83.3423    | 21.2409     | 185.06<br>9 | -6.42704      |             | 23  | 20        | 1.95        | 0.72        | 2.17      | 0.29         | PSR J0534+2200 / PSR<br>B0505+21 |
| ASPJ132532m635614 | 201.525    | -63.2077    | 306.82<br>6 | -0.59836<br>1 |             | 10  | 6         | 0.72        | 0.55        | 1.73      | 0.35         | PSR J1324-6302                   |
| ASPJ225937p604409 | 343.678    | 61.0289     | 109.26<br>8 | 1.29245       |             | 9   | 12        | 1.79        | 0.91        | 2.99      | 0.62         | PSR J2302+6028                   |
| Geminga           | 98.414     | 17.8041     | 195.07<br>7 | 4.22903       |             | 267 | 68        | 6.02        | 0.97        | 2.01      | 0.11         |                                  |
| VelaPulsar        | 128.825    | -45.2617    | 263.61<br>6 | -2.84459      |             | 380 | 103       | 15.30       | 1.96        | 2.12      | 0.10         |                                  |

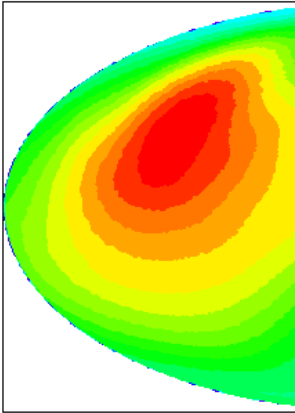
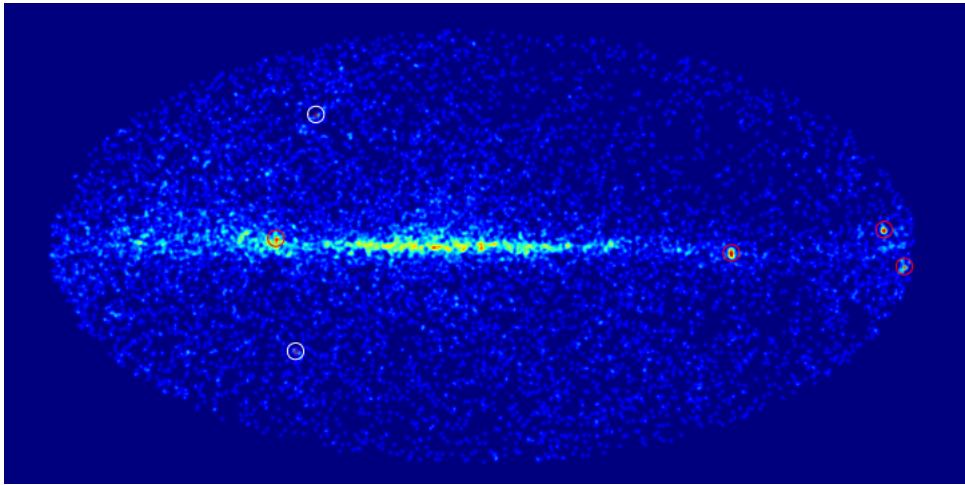
### Six hours run (n. 1666)



| Extragalactic sources | RA (J2000) | DEC (J2000) | L       | B        | Delta* | T S | Npre d | Flux** | Flux err | inde x | index err | comment  |
|-----------------------|------------|-------------|---------|----------|--------|-----|--------|--------|----------|--------|-----------|----------|
| ASPJ224900p164500     | 343.166    | 16.2734     | 85.8706 | -37.9061 |        | 43  | 15     | 2.74   | 0.93     | 2.73   | 0.36      | 3C 454.3 |

| Galactic sources  | RA (J2000) | DEC (J2000) | L       | B         | Delta* | T S | Npre d | Flux** | Flux err | inde x | index err | comment        |
|-------------------|------------|-------------|---------|-----------|--------|-----|--------|--------|----------|--------|-----------|----------------|
| ASPJ053216p230319 | 83.9379    | 22.4746     | 184.318 | -5.29995  |        | 29  | 18     | 3.57   | 1.23     | 2.95   | 0.46      | PSR J0534+2200 |
| ASPJ102307m581313 | 157.207    | -58.4384    | 285.168 | -0.573769 |        | 20  | 10     | 4.71   | 2.31     | 2.22   | 0.37      | EMS0667        |
| ASPJ201908p392252 | 305.65     | 39.8241     | 77.8336 | 1.56206   |        | 22  | 27     | 3.95   | 1.31     | 2.74   | 0.37      | PSR J2021+4026 |
| Geminga           | 98.4192    | 17.7027     | 195.17  | 4.18715   |        | 261 | 59     | 7.36   | 1.27     | 2.02   | 0.12      |                |
| VelaPulsar        | 128.914    | -45.0977    | 263.522 | -2.69596  |        | 65  | 16     | 8.78   | 2.90     | 1.91   | 0.21      |                |

Six hours run (n. 1667)

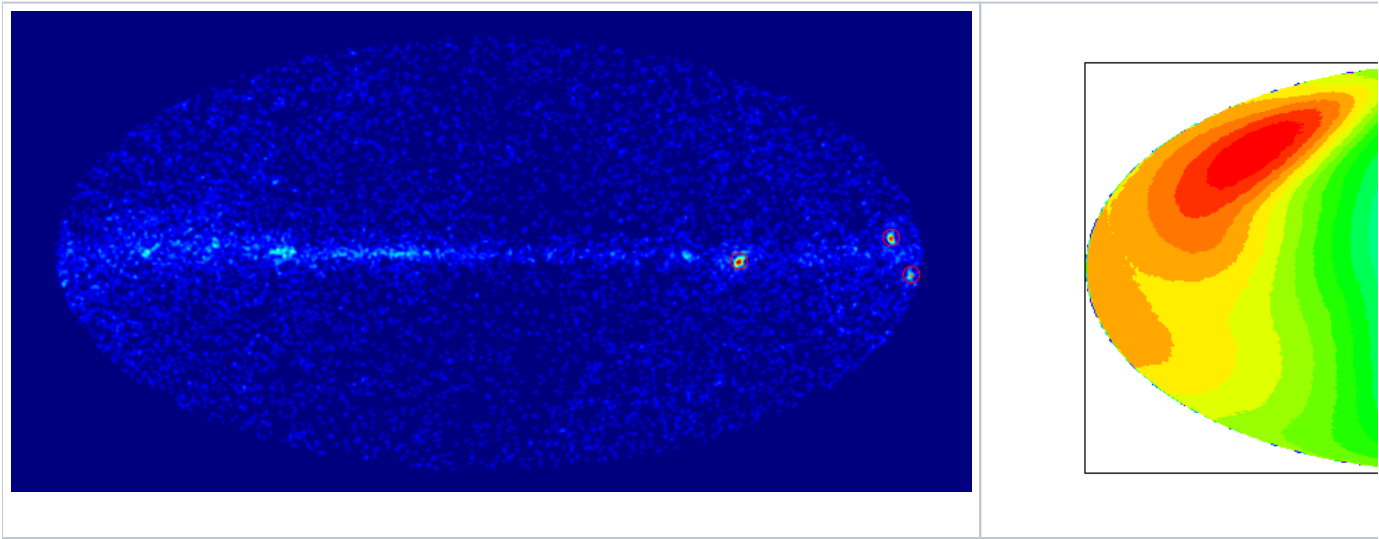


| Extragalactic sources | RA (J2000) | DEC (J2000) | L       | B        | Delta* | T S | Npre d | Flux** | Flux err | inde x | index err | comment |
|-----------------------|------------|-------------|---------|----------|--------|-----|--------|--------|----------|--------|-----------|---------|
| 3C454.3               | 343.25     | 16.25       | 85.9392 | -37.9707 |        | 22  | 11     | 2.49   | 1.08     | 3.40   | 0.76      |         |
| ASPJ155100p551500     | 237.75     | 55.25       | 86.6063 | 47.2271  |        | 14  | 8      | 1.54   | 0.86     | 3.17   | 0.64      | Unknown |

| Galactic sources | RA (J2000) | DEC (J2000) | L | B | Delta* | T S | Npre d | Flux** | Flux err | inde x | index err | comment |
|------------------|------------|-------------|---|---|--------|-----|--------|--------|----------|--------|-----------|---------|
|------------------|------------|-------------|---|---|--------|-----|--------|--------|----------|--------|-----------|---------|

|                   |         |          |         |          |  |     |    |       |      |      |      |                |
|-------------------|---------|----------|---------|----------|--|-----|----|-------|------|------|------|----------------|
| ASPJ201550p405426 | 305.126 | 40.5653  | 78.216  | 2.31261  |  | 53  | 24 | 1.70  | 0.63 | 1.79 | 0.19 | PSR J2021+4026 |
| CrabPulsar        | 83.5424 | 22.108   | 184.433 | -5.80524 |  | 31  | 17 | 2.56  | 0.93 | 2.25 | 0.29 |                |
| Geminga           | 98.5101 | 17.6888  | 195.222 | 4.25786  |  | 193 | 41 | 5.89  | 1.22 | 1.97 | 0.14 |                |
| VelaPulsar        | 128.985 | -45.2067 | 263.639 | -2.72155 |  | 182 | 53 | 11.70 | 2.20 | 2.06 | 0.14 |                |

Six hours run (n. [http://glast-ground.slac.stanford.edu/ASPDataViewer/pgwave.jsp?&process\\_id=271447200&dataSourceMode=Prod1668](http://glast-ground.slac.stanford.edu/ASPDataViewer/pgwave.jsp?&process_id=271447200&dataSourceMode=Prod1668))



| Extragalactic sources | RA (J2000) | DEC (J2000) | L | B | Delta* | T S | Npre d | Flux** | Flux err | index | index err | comment |
|-----------------------|------------|-------------|---|---|--------|-----|--------|--------|----------|-------|-----------|---------|
|-----------------------|------------|-------------|---|---|--------|-----|--------|--------|----------|-------|-----------|---------|

| Galactic sources  | RA (J2000) | DEC (J2000) | L       | B        | Delta* | T S | Npre d | Flux** | Flux err | index | index err | comment        |
|-------------------|------------|-------------|---------|----------|--------|-----|--------|--------|----------|-------|-----------|----------------|
| ASPJ053216p230319 | 83.4179    | 22.1579     | 184.328 | -5.87581 |        | 71  | 32     | 2.99   | 0.80     | 2.21  | 0.20      | PSR J0534+2200 |
| Geminga           | 98.5135    | 17.7905     | 195.132 | 4.30713  |        | 316 | 79     | 6.52   | 1.00     | 2.03  | 0.11      |                |
| VelaPulsar        | 128.758    | -45.0496    | 263.417 | -2.75523 |        | 354 | 105    | 12.10  | 1.56     | 1.97  | 0.09      |                |

\* Results are obtained with unbinned likelihood and P6\_V3\_DIFFUSE irfs.  
 \*\* Distance in arc min from ASDC tools  
 \*\*\*  $F(E>100\text{MeV}) \times 10^{-6} \text{ ph cm}^{-2} \text{ s}^{-1}$